REMARKS

Claims 1-3, 7-14, 16-26, 29-32, 35, and 36 remain pending in the present application.

In response to the Office Action mailed May 23, 2005, Applicant respectfully requests the Examiner to reconsider the above-captioned application in view of the foregoing amendments and the following comments.

The Applied Combination of Tzanev/Bohn Does Not Make Obvious The Motorcycle Recited By Claims 1 or 2

Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being obvious over Tzanev in view of Bohn. Applicant respectfully traverses the present rejection.

Tzanev teaches a motorcycle having an accelerometer that is used to determine when a turn has been completed for purposes of canceling a turn signal, i.e., a "blinker". Additionally, Tzanev teaches that the same accelerometer can be used to determine if a tip-over, from a *static* position, is about to occur and using a control system to *shut off* the motor if a tip over is detected. Tzanev, however, fails to teach a motorcycle that decreases a power output of its motor based on a measurement of the leaning angle ***during turning***.

In the Outstanding Office Action, at page 3, lines 1-3, the Examiner has indicated that in the disclosure of Tzanev "the accelerometer is adapted to output and output signal that varies with a proportional relation to a leaning angle of the motorcycle when turning (column 4, line 55-column 6, line 12)." As noted in the previous response filed by Applicant, the Tzanev reference absolutely does not teach that an accelerometer, used in conjunction with a motorcycle, can be adapted to output a signal that varies with a proportional relation to a leaning angle ***during turning***.

Rather, the Tzanev reference only teaches that such an accelerometer will provide an output when the leaning angle of the motorcycle is ***changing***. Neither expressly nor inherently does Tzanev teach a system that provides an output that changes proportionally to a motorcycle leaning angle ***during turning***.

Rather, it is crystal clear from the specification of the Tzanev reference that if one were to read the output of the accelerometer of Tzanev during a turn, the output would not indicate a leaning angle of the motorcycle. Rather, the accelerometer only gives transient readings while the leaning angle of the motorcycle ***changes***.

As noted in the previously filed response, Applicant again wishes to point out the specific portions of the Tzanev reference which clearly indicate that the output of the accelerometer and the Tzanev reference is not proportional to the leaning angle of the motorcycle during turning.

For example, with regard to the Tzanev system for turn signal control, Tzanev teaches:

> The voltage output of the accelerometer 40 may be used to determine when the vehicle has **begun and completed a turn**. As should be evident from the discussion above, when the vehicle **begins a turn**, lateral forces act upon the accelerometer causing it to **generate an output** of a predetermined amount. As the vehicle turns back to an upright position at the **end of the turn**, lateral forces act upon the accelerometer causing it to **generate another output** of another predetermined amount. If the outputs, which are preferably digital and measured in A/D counts, occur over a certain period of time, the movement is considered to be a turn by the processor 12.

Tzanev, col. 5, ll 47-58 (emphasis added).

Additionally, Tzanev notes that:

> "Of course, centrifugal forces acting on the vehicle **while it is in motion** tend to counter act the gravitational forces acting on the vehicle. Thus, in steady state motion (such as when traveling around a curve at a constant speed) the output of the accelerator is **zero or nearly zero**.

Tzanev, col. 5, ll. 3-6 (emphasis added).

Thus, reading these two passages together, it is clear that during the operation of the motorcycle through a turn, the accelerometer of Tzanev outputs signals as follows:

1) Before the turn, the output signal of the accelerometer 40 is zero, indicating no leaning.

2) At the beginning of the turn, as the leaning angle of the motorcycle changes, the output of the accelerometer changes, thereby generating an "output of a predetermined amount." Tzanev, col. 5, ll 47-58 (emphasis added)

3) In the middle of the turn, when the motorcycle achieves "steady state motion (such as when traveling around a curve at a constant speed) the output of the accelerator is **zero or nearly zero**." Tzanev, col. 5, ll. 5-6 (emphasis added). As such, the accelerometer does not generate a signal that is in proportion to the leaning angle, i.e., the output returns to zero even when a constant leaning angle is maintained.

4) At the end of the turn, while the leaning angle of the motorcycle changes again, the accelerometer outputs another signal. Tzanev, col. 5, ll 47-58.

5) The two signals generated at the beginning of the turn and at the end of the turn, respectively, are used to determine if a turn has been completed.

Thus, Tzanev fails to teach a lean angle sensor for a motorcycle that can output a signal that is in proportion to a *leaning angle* of the motorcycle ***during a turn***. Rather, the accelerometer 40 of Tzanev only outputs a signal at the beginning and ending of turns, as noted above. During a turn with constant velocity and leaning angle, the output signal of the accelerometer 40 is **zero or nearly zero."** Tzanev, col. 5, ll. 5-6 (emphasis added).

Bohn teaches a motorcycle that has one sensor sensing rearward-forward accelerations and one sensor for detecting vertical accelerations. However, nothing in Bohn teaches decreasing the power output of the engine when an excessive lean angle is detected ***during turning***.

Thus, no obvious combination of the Tzanev and Bohn references would result in the motorcycle recited in Claim 1. Applicant wishes to note that the Examiner has not provided a reasonable explanation of the Tzanev reference for supporting the proposition that the accelerometer of Tzanev is "adapted to output an output signal that varies with a proportional relation to a leaning angle of the motorcycle when turning." Rather, the Examiner has merely cited to the same portions of the specifications noted by Applicant above, which Applicant has shown that clearly indicate that the accelerometer of Tzanev does not and cannot provide an output that is proportional to the leaning angle of the motorcycle when turning.

One of the important considerations when analyzing this situation is that a motorcycle leans in the same direction that it turns; a fundamentally different turning dynamic than that of a four-wheeled vehicle. This natural tendency for a motorcycle to lean inwardly during a turn is the fundamental dynamic that causes the accelerometer of Tzanev to return to a **zero output** when the motorcycle is in a steady state **during a turn**.

The Examiner appears to completely ignore this teaching in the Tzanev reference. If the Examiner has a different understanding of the Tzanev reference, Applicant respectfully requests the Examiner to more fully explain the Examiner's application of the Tzanev reference, as Applicant cannot fully understand the rejection.

In contrast to the teachings of Tzanev and Bohn, Claim 1 recites, as previously noted, "an accelerometer being mounted within the outer housing and electrically communicating with the

control unit, the accelerometer being adapted to output an output signal that varies with a proportional relation to a leaning angle of the motorcycle when turning, said control unit adapted to compare said output signal to a threshold signal range, said control unit further adapted to decrease the output of said motive member if said output signal is outside said threshold signal range."

As used herein, the term "proportional relation" is intended to encompass any repeatable relationship between leaning angle and output signal. Many different examples of proportional relationships are mentioned in the specification. One non-limiting example is disclosed in Figures 3-4, and the accompanying text.

Applicant submits that the term "proportional relationship" is only meant to convey that the value of the output signal changes with changes in leaning angle, whether the relationship is linear or non-linear. For example, the term "proportional relationship" encompasses relationships where incremental increases in a leaning angle of the motorcycle create incremental increases (or decreases) in output signal value, unlike the output signal of the accelerometer of Tzanev.

Because Tzanev fails to teach a system that can provide such an output signal characteristic for a motorcycle, no obvious combination of the Tzanev and Bohn references would result in a motorcycle having any sensor arrangement that outputs a signal that proportionally varies with a leaning angle ***during turning*** and a controller that decreases a power output of the engine when that signal rises or falls below a threshold ***during turning***. Applicant thus submits that Claim 1 clearly and non-obviously defines over the cited art.

Additionally, Applicant submits that Claim 2 also defines over the cited references, not only because it depends from Claim 1, but also on its own merit.

The Applied Combination of Tzanev/Bohn/Schiffmann Does Not Make Obvious The Motorcycle Recited By Claim 3

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being obvious over Tzanev in view of Bohn and in further view of Schiffmann. Applicant respectfully traverses the present rejection.

Applicant submits that Claim 3 defines over the cited references, not only because is depends from Claim 1, but also on its own merit.

The Applied Combination of Tzanev/Saito/Bohn Does Not Make Obvious The Vehicle Recited By Claims 13, 14, 16, 20, or 21

Claims 13, 14, 16, 20, and 21 stand rejected under 35 U.S.C. § 103(a) as being obvious over Tzanev in view Saito et al. and in further view of Bohn. Applicant respectfully traverses the present rejection.

Firstly, Applicant would like to point out that Claim 13 recites, among other recitations "[a] method of controlling operations of a **motorcycle** during an accident. . . said method comprising sensing an output signal from said accelerometer which varies in accordance with a **proportional relationship to a leaning angle of the motorcycle *during turning***, comparing said output signal with a preset threshold level, if said output signal exceeds said preset threshold level then disabling said motive member". (Emphasis added.)

As noted above with reference to the rejection of Claim 1, nothing in the Tzanev and Bohn references teach an accelerometer system for a motorcycle that can generate a signal in a **proportional relationship** to a leaning angle of the motorcycle ***during turning***. Nothing in the Sasaki or Saito et al. references rectifies this failure.

Applicant thus submits that Claim 13 clearly and non-obviously defines over the cited references. Additionally, Applicant submits that Claims 14, 16, 20 and 21 also define over the cited references, not only because they depend from Claim 13, but also on their own merit.

The Applied Combination of Tzanev/Saito et al./Bohn/Sasaki Does Not Make Obvious The Method Recited By Claim 17

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being obvious over Tzanev in view of Saito et al., further in view of Bohn, and further in view of Sasaki. Applicant respectfully traverses the present rejection.

As noted above, Applicant submits that Claim 13 clearly and non-obviously defines over the proposed combination of Tzanev and Bohn. The additional references of Sasaki and Saito et al. do not provide any additional teaching relevant to the patentability of Claim 13. Thus, Applicant submits that Claim 17 also defines over the prior art references, not only because it depends from Claim 13, but also on its own merit.

The Applied Combination of Tzanev/Saito et al./Bohn/Carson et al. Does Not Make Obvious The Method Recited By Claims 18 and 19

Claims 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious over Tzanev in view of Saito et al., further in view of Bohn, and further in view of Carson et al. Applicant respectfully traverses the present rejection.

As noted above, Applicant submits that Claim 13 clearly and non-obviously defines over the proposed combination of Tzanev and Bohn. Further, the disclosures of Saito et al. and Carlson et al. provide no further disclosures relevant to the patentability of Claim 13. Thus, Applicant submits that Claims 18 and 19 also define over the cited references, not only because they depend from Claim 13, but also on their own merit.

The Applied Combination of Tzanev/Saito et al./Bohn/Schiffmann Does Not Make Obvious The Method Recited By Claims 22-24

Claims 22-24 stand rejected under 35 U.S.C. § 103(a) as being obvious over Tzanev in view of Saito et al., further in view of Bohn, and further in view of Schiffmann. Applicant respectfully traverses the present rejection.

However, as noted above, Applicant submits that Claim 13 clearly and non-obviously defines over the proposed combination of the Tzanev and Bohn references. Further, nothing in the Schiffmann or Saito et al. references provides any further teaching relevant to the patentability of Claim 13. Thus, Applicant submits that Claims 22-24 also define over the cited references, not only because they depend from Claim 13, but also on their own merit.

CONCLUSION

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action are inapplicable to the present claims. Accordingly, early issuance of a Notice of Allowance is most earnestly solicited.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claims in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicant's attorney, Michael A. Guiliana at (949) 721-6384 (direct line), in order to resolve such issue promptly.

Respectfully submitted,

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Dated: January 23, 2006 By: _____

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